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INDUSTRIAL FISHERY PRODUCTS

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SITUATION & OUTLOOK

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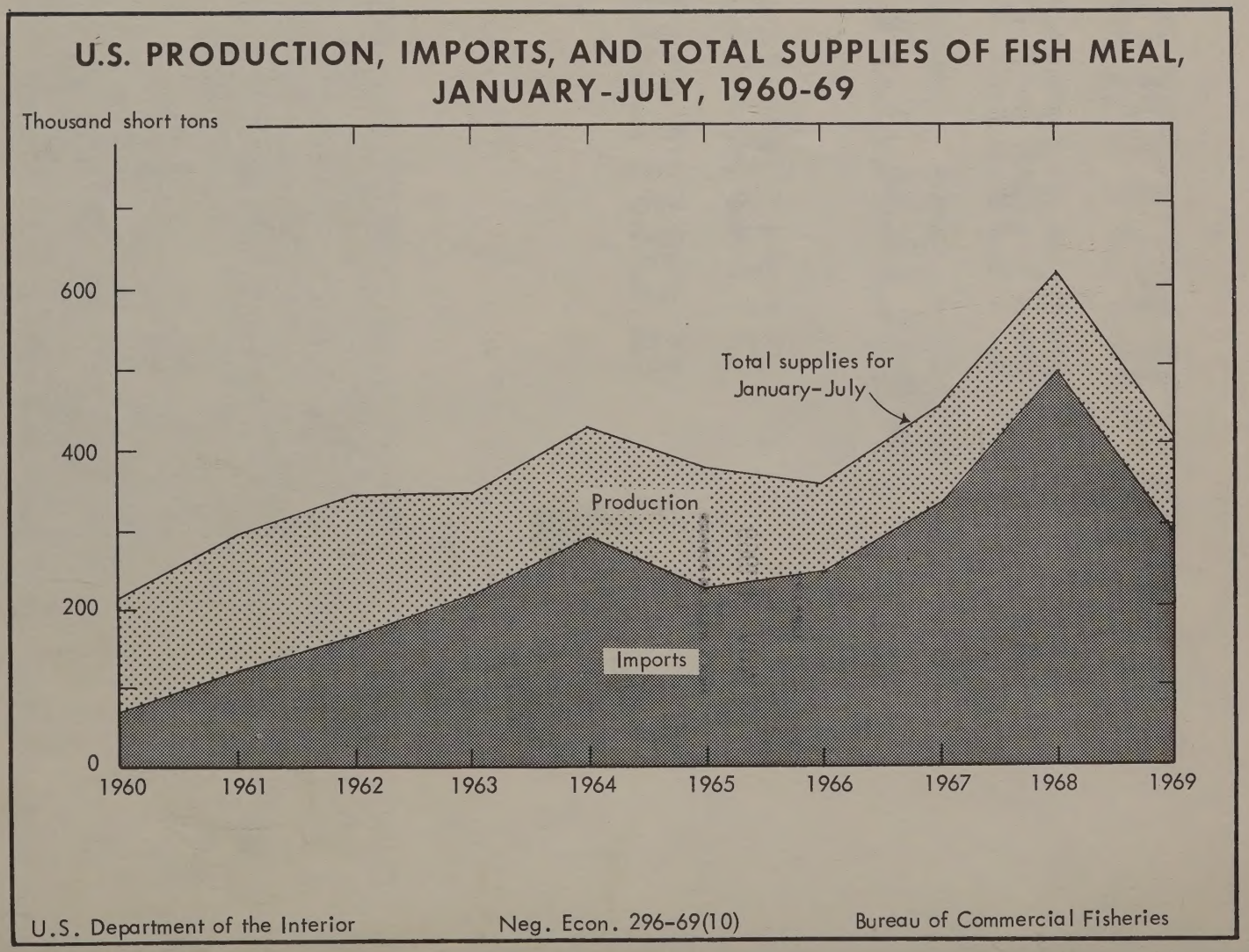
U.S. PRODUCTION, IMPORTS, AND TOTAL SUPPLIES OF FISH MEAL, JANUARY-JULY, 1960-69
Thousand short tons
600
400
200
0
Total supplies for January-July
Production
Imports
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969
U.S. Department of the Interior
Neg. Econ. 296-69(10)
Bureau of Commercial Fisheries

Figure 1

INDUSTRIAL FISHERY PRODUCTS

SITUATION AND OUTLOOK

Approved by the Bureau of Commercial Fisheries Situation and Outlook Board,
October 20, 1969

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SUMMARY

FISH MEAL

Total supplies of fish meal in the United States in January-July 1969 (excluding stocks which are not reported) were 414,500 tons[1] -- down one-third from last year. Supplies in August were 49,700 tons--only two-fifths of supplies in August last year. The decline in supplies was due to a decline in imports. Imports in the first 7 months of 1969 were 293,600 tons--down two-fifths from 1968. Imports for August were only 18,300 tons--down 79 percent from last year.

[1]Short tons are used in this report unless otherwise specified.

Imports from Peru--the major supplier of fish meal to the United States--were about half of last year's imports from that country in the first 7 months, and imports in August were one-twentieth of last year.

U.S. production of fish meal in January-July was 120,900 tons--up 5 percent from last year. About 73 percent of this production came from menhaden--compared to 61 percent last year.

Even though placements of broiler chicks--the major consumers of fish meal--in the first 8 months of this year were about 7 percent more than last year, the use of fish meal by feed manufacturers was down considerably from last year. The major reasons for the decrease in the use of fish meal in the face of increasing broiler placements were (1) the longshoremen's strike at the beginning of the year which cut off supplies of imported fish meal, and (2) the higher prices of fish meal in May-September. Prices of menhaden meal averaged about $174 per ton, f.o.b. East Coast and Gulf points in May, and about $172 per ton in September. Prices of Peruvian meal as quoted at New York City averaged $161 per ton, f.o.b. East Coast ports in May, and $172 per ton in September. These prices are the highest since the last part of 1965 and the first part of 1966 when the situation was similar to the present; i.e., a situation of increasing broiler placements and declining use of fish meal.

Even though broiler placements in the fourth quarter are expected to be 10 to 15 percent over last year, if fish meal prices remain at or above their current level, we estimate that 120,000 to 140,000 tons of fish meal will be used by feed formulators in the fourth quarter--compared to 264,000 tons in the same period last year. We expect that one-fourth to one-third of this meal will be supplied by domestic production--compared to only about one-sixth last year. Imports in the fourth quarter are estimated to be 75,000 to 100,000 tons--compared to 218,700 tons last year.

We estimate that total imports for 1969 will be less than 445,000 tons or about half of last year's imports. Total supplies are expected to be 635,000 to 670,000 tons or about two-fifths below last year's record-high supplies of over 1 million tons.

FISH SOLUBLES

Total supplies of fish solubles in the first 7 months were about 44,400 tons--up 13 percent from last year. Almost all these solubles were produced domestically. Only 80 tons were imported in the first 7 months. We estimate that 11,000 to 14,000 tons

of fish solubles will be made in the fourth quarter of 1969 and that less than 100 tons will be imported.

Prices of menhaden solubles remained at a relatively low level in the first 9 months of the year, ranging between $46.25 per ton, f.o.b. East Coast plants, and $51.25 per ton. These low prices indicate a weak demand for solubles in the first part of the year and probably were a major factor contributing to the extremely low imports in that period. However if the margin between the price of fish solubles and the price of fish meal continues to widen, feed formulators might include more solubles in future rations.

FISH OIL

The United States produced an estimated 84.7 million pounds of fish oil in January-July--13 percent more than last year. Most of this oil was made from menhaden. We estimate that 32 to 36 million pounds of fish oil will be produced in the fourth quarter of this year.

Domestic use of fish oil in the 7-month period was 19.2 million pounds, and exports were 97.4 million pounds--nearly five times more than last year. Both domestic and European prices have increased in recent weeks. These rising prices, together with increased domestic use and exports, indicate an increased demand for fish oil. We estimate that domestic use plus exports in the fourth quarter will be about 37 million pounds.

Stocks of fish oil on August 1, 1969, as reported by the Bureau of the Census, were 74.4 million pounds--the third lowest stocks on record for that date. The heavier-than-usual exports in the first 7 months caused the lower stocks. We estimate that stocks at the beginning of the fourth quarter will be about 80 million pounds. If production, domestic use, and exports in the fourth quarter are as expected, stocks at the end of the fourth quarter will be about the same or slightly less than stocks at the beginning of the quarter.

FISH MEAL

REVIEW: JANUARY-JULY 1969

Supply

Fish Meal Supplies--Down One-Third From 1968

Total U.S. supplies of fish meal in January-July 1969 (excluding stocks which are not reported) were 414,500 tons--down 33 percent from 1968 and down 7 percent from the 1964-68 average (table 1 and fig. 1). The decline in supplies was due to a decline in imports. Imports for each of the first 7 months of 1969 were below last year. On the other hand, domestic production increased over last year--upping its share of total supplies from 19 to 29 percent.

Table 1.--Total fish meal available in the United States: production plus imports, by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968[2]	1969[2]
	Thousand short tons							
January	28.3	20.8	33.1	19.2	18.1	47.7	93.4	29.6
February	22.4	43.0	37.6	28.4	27.5	48.3	51.8	30.8
March	22.7	43.2	43.2	57.5	39.2	79.1	59.2	49.2
April	35.8	35.0	64.1	51.0	50.8	60.0	74.0	70.6
May	65.8	71.4	91.6	55.6	55.3	56.2	89.4	73.9
June	87.6	53.8	83.5	93.1	82.6	74.1	111.6	86.3
July	81.5	82.1	74.1	68.8	85.5	84.0	136.0	74.1
August	68.7	87.7	70.0	55.8	90.8	108.4	123.6	49.7
September	45.4	60.0	56.9	27.9	66.5	76.0	78.9	
October	48.7	49.9	28.3	17.1	46.4	61.5	68.9	
November	22.1	30.8	36.4	17.8	54.7	78.4	84.9	
December	21.7	39.7	45.5	21.0	42.8	79.2	110.2	
Total[3]	550.7	617.4	664.3	513.0	660.2	852.9	1,081.9	

[1]Excludes meal made from shellfish.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Production in January-July--Up 5 Percent from Last Year

The United States produced about 120,900 tons of fish meal in the first 7 months of 1969--up 5 percent from 1968 but down 4 percent from the 1964-68 average (tables 2 and 3). About 73 percent of the 7-month production came from menhaden--compared to 61 percent in 1968 and the 1964-68 average of 65 percent (table 3). Over half of the rest of the meal was made from tuna and mackerel scrap.

About 88,400 tons of menhaden meal were produced in January-July 1969--one-fourth more than last year (tables 3 and 4). About 84 percent of the menhaden meal was produced in the Gulf Coast area this year compared to 69 percent last year.

Table 2.--U.S. production of fish meal by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968[2]	1969[2]
	Thousand short tons							
January	2.9	2.3	2.1	3.2	2.8	5.7	2.5	2.4
February	3.6	2.9	2.3	2.9	2.3	3.9	2.7	3.2
March	4.2	2.7	3.1	3.8	5.7	4.9	4.5	4.0
April	9.4	8.4	8.1	11.3	11.3	10.1	11.8	12.6
May	40.5	40.3	32.1	25.1	20.3	17.2	19.0	28.8
June	61.2	35.3	49.0	48.6	36.9	33.5	30.7	32.6
July	55.6	38.9	45.2	50.1	36.5	36.4	44.2	37.3
August	40.4	43.7	33.5	42.0	31.4	33.6	36.2	31.4
September	31.7	24.7	22.8	21.1	23.2	20.3	29.6	
October	36.0	18.5	8.6	12.3	11.0	11.4	20.2	
November	10.2	13.4	10.7	12.1	18.9	15.4	14.2	
December	2.7	10.0	7.7	9.8	12.0	9.0	11.0	
Total[3]	298.4	241.1	225.2	242.3	212.4	201.4	226.6	

[1] Excludes meal made from shellfish.
[2] Preliminary.
[3] Figures may not add to total because of rounding.

Table 3.--U.S. production of fish meal by raw material source, January-July, 1964-68 average, 1968, and 1969

Source	1964-68 average		1968		1969[1]	
	Thousand short tons	Percent	Thousand short tons	Percent	Thousand short tons	Percent
Alewives	2.0	1.6	1.4	1.2	[2]	-
Groundfish	5.4	4.3	5.0	4.3	3.7	3.1
Herring	5.3	4.2	5.4	4.7	2.2	1.8
Menhaden[3]	81.9	65.1	70.8	61.3	88.4	73.1
Tuna, mackerel, and anchovies	15.9	12.6	16.7	14.5	19.0	15.8
Unclassified	15.4	12.2	16.2	14.0	7.5	6.2
Total[4]	126.0	100.0	115.5	100.0	120.9	100.0

[1]Preliminary.
[2]Included in "unclassified."
[3]Includes a small quantity of other species.
[4]Figures may not add to total because of rounding.

Landings of menhaden through July this year were 835.2 million pounds--26 percent over last year and 8 percent over the 1964-68 average (table 5). Landings for the South Atlantic region were 13 percent over last year, but the Middle Atlantic and Chesapeake regions were significantly below last year. Total menhaden landings for the Atlantic Coast were 36 percent below last year. Gulf Coast landings were up more than 50 percent from last year. Most of the menhaden caught on the Atlantic Coast were 2- and 3-year-old fish, whereas most of the menhaden in the Gulf were 1 year old. A menhaden that is considered 1 year old this year was spawned in the winter of 1967-68. A 1-year-old menhaden generally will yield less oil and meal per pound of fish than an older one.

Preliminary estimates for August put Atlantic Coast landings about 40 percent below the same month last year. Also, more 1-year old fish were caught in August than in previous months. Despite Hurricane Camille, Gulf landings for August were about the same as last year.

Hurricane Camille inflicted some damage on plants at Moss Point, Miss. and Empire, La., and on stored meal at Gulfport and Pascagoula, Miss. Menhaden fishing vessels in the area reportedly escaped major damage. To what

extent fish meal production for the rest of the year will be affected by the damage caused by Hurricane Camille, remains to be seen.

The fishing season for anchovy off California opened on August 1 for the Northern Permit Area and on September 15 for the Southern Permit Area. The season will close May 15, 1970. Landings through October 5 for both areas totaled 5,800 tons--compared to 1,900 tons landed through October 6 last year. The quota for the two areas is 75,000 tons.

Table 4.--Production of menhaden meal by area and by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968	1969[2]
	Thousand short tons							
	Atlantic Coast							
January	0.2	-	0.1	0.2	0.5	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-
April	0.7	1.1	0.9	0.6	0.2	1.1	1.0	0.2
May	18.0	12.8	5.4	3.9	1.1	1.9	2.7	2.5
June	30.5	12.9	12.2	12.6	4.6	6.6	7.1	4.8
July	23.2	13.5	11.7	8.8	6.0	6.0	10.9	6.7
August	15.7	11.6	11.5	12.7	7.2	6.8	7.1	
September	12.3	9.8	7.2	7.5	5.8	3.5	4.9	
October	23.8	6.1	4.4	6.5	5.7	4.5	8.3	
November	6.5	8.9	7.2	8.5	14.8	10.2	9.2	
December	0.3	6.3	5.0	6.1	7.1	6.2	6.2	
Total[3]	131.2	83.0	65.6	67.4	53.0	46.9	57.5	
	Gulf Coast							
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	0.1	-	-	-
April	3.3	4.0	2.0	6.7	3.7	3.7	3.2	4.4
May	13.9	22.0	17.3	14.9	12.9	8.4	8.8	20.7
June	23.1	16.7	27.5	27.8	22.5	16.7	15.4	23.3
July	25.0	18.0	22.3	30.4	18.9	18.6	21.7	25.7
August	18.0	24.4	14.5	20.7	12.4	16.4	18.4	
September	15.0	9.8	10.8	7.5	11.4	7.5	14.4	
October	9.4	6.3	0.3	0.6	-	0.9	4.0	
November	0.8	[1]	-	-	-	-	-	
December	-	-	-	-	-	-	-	
Total[3]	108.5	101.2	94.7	108.6	81.9	72.2	85.8	
	Total[3]							
January	0.2	-	0.1	0.2	0.5	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	0.1	-	-	-
April	4.0	5.1	2.9	7.3	3.8	4.8	4.3	4.6
May	31.9	34.8	22.7	18.8	14.0	10.3	11.5	23.2
June	53.6	29.6	39.7	40.4	27.1	23.3	22.4	28.1
July	48.2	31.5	34.0	39.2	24.9	24.7	32.6	32.5
August	33.7	36.0	26.0	33.4	19.7	23.2	25.4	
September	27.3	19.6	18.0	15.0	17.2	11.0	19.3	
October	33.2	12.4	4.7	7.1	5.7	5.4	12.4	
November	7.3	8.9	7.2	8.5	14.8	10.2	9.2	
December	0.3	6.3	5.0	6.1	7.1	6.2	6.2	
Total[3]	239.7	184.2	160.3	176.0	135.0	119.1	143.3	

[1]Includes a small amount of meal from other species.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Table 5.--Menhaden landings by area, January-July, 1964-68 average, 1968, and 1969

Area	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Middle Atlantic	38.3	4.9	37.4	5.6	14.8	1.8
Chesapeake	103.7	13.4	108.5	16.4	52.6	6.3
South Atlantic	54.4	7.0	51.1	7.7	57.8	7.0
Total Atlantic[2]	196.4	25.3	197.0	29.7	125.2	15.0
Gulf Coast	579.7	74.7	465.3	70.3	710.0	85.0
Total U.S.	776.1	100.0	662.3	100.0	835.2	100.0

[1]Preliminary.
[2]Figures may not add to total because of rounding.

Imports of Fish Meal--Down Two-Fifths from 1968

Imports of fish meal in January-July 1969 were 293,600 tons--down 41 percent from 1968 and down 8 percent from the most recent 5-year average (tables 6 and 7). Imports were lower than last year in each of the 7 months. The greatest difference was in January when imports were 27,200 tons or 70 percent below last year. This marked decrease, the decrease of 44 percent in February, and the smaller decreases in March and April reflected the longshoremen's strike in January and February. The lower imports in May, June, and July reflected the increasing prices of fish meal during these 3 months and the subsequent decrease in the use of fish meal by feed formulators. Imports of fish meal in July were down 60 percent from last year. Imports for August were 18,300 tons--down nearly four-fifths from last year and the lowest monthly imports since January 1966 when the average price of imported meal was about $173 per ton.

Imports from Peru were about 200,600 tons in January-July this year--about half of last year's imports from that country in the same period (table 7 and fig. 2). Slightly over two-thirds of the imports in the first 7 months of this year came from Peru--compared to nearly four-fifths last year. In August, imports from Peru were only 2,900 tons--one-twentieth of imports last year in August and the lowest since November 1965, when prices of Peruvian meal were averaging $186 per ton f.o.b. East Coast ports.

Table 6.--U.S. imports of fish meal by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968[1]	1969[1]
	Thousand short tons							
January	25.4	18.5	31.0	16.0	15.3	42.0	90.9	27.2
February	18.8	40.1	35.3	25.5	25.2	44.4	49.0	27.6
March	18.5	40.5	40.1	53.7	33.6	74.1	54.7	45.2
April	26.4	26.6	56.0	39.7	39.5	50.0	62.3	58.0
May	25.3	31.1	59.5	30.5	35.0	39.0	70.4	45.1
June	26.5	18.5	34.5	44.5	45.6	40.6	80.9	53.6
July	25.9	43.2	28.9	18.7	49.0	47.6	91.7	36.8
August	28.3	44.0	36.5	13.9	59.4	74.8	87.4	18.3
September	13.7	35.3	34.1	6.8	43.3	55.7	49.3	
October	12.7	31.4	19.7	4.8	35.4	50.1	48.8	
November	11.9	17.4	25.7	5.7	35.7	63.0	70.7	
December	19.0	29.7	37.8	11.0	30.8	70.2	99.3	
Total[2]	252.3	376.3	439.1	270.7	447.8	651.5	855.3	

[1]Preliminary.
[2]Figures may not add to total because of rounding.

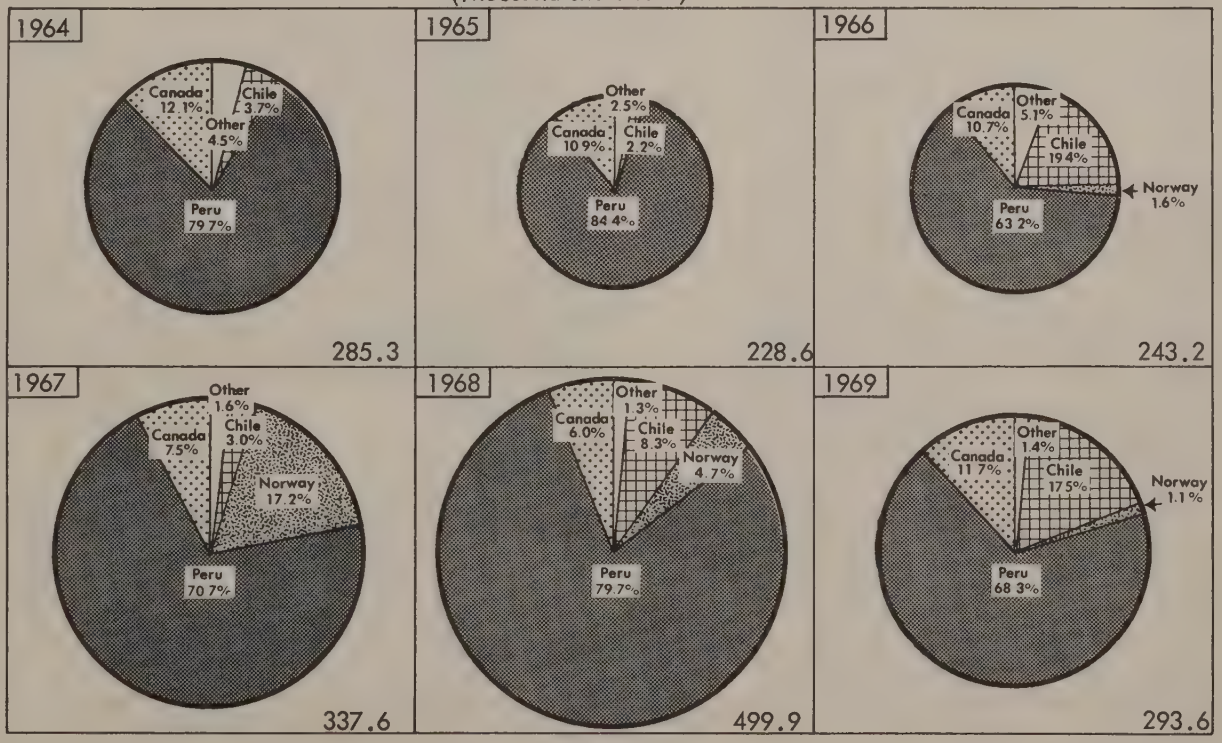
Table 7.--U.S. imports of fish meal by country of origin, January-July, 1964-68 average, 1968, and 1969

Country of origin	1964-68 average		1968		1969	
	Thousand short tons	Percent	Thousand short tons	Percent	Thousand short tons	Percent
Canada	28.2	8.8	30.0	6.0	34.5	11.8
Chile	22.9	7.2	41.6	8.3	51.3	17.5
Norway	17.1	5.4	23.6	4.7	3.1	1.0
Peru	242.2	76.0	398.3	79.7	200.6	68.3
South Africa and South West Africa	3.6	1.1	-	-	-	-
Other	4.9	1.5	6.3	1.3	4.0	1.4
Total[1]	318.9	100.0	499.9	100.0	293.6	100.0

[1]Figures may not add to total because of rounding.

U.S. IMPORTS OF FISH MEAL BY COUNTRY OF ORIGIN, JANUARY-JULY, 1964-69

(Thousand short tons)



U.S. Department of the Interior | Neg. Econ. 297-69(10) | Bureau of Commercial Fisheries

Figure 2

Prices of fish meal in Peru were around $165 per metric ton the latter part of August--significantly above what they were last year. As would be expected, prices of Peruvian meal in the United States also were higher than last year.

Both Canada and Chile shipped more meal to the United States this year than last in the first 7 months. Imports from Canada were 15 percent more than last year and imports from Chile were 23 percent more. Imports from Norway continued to be quite low--3,100 tons this year compared to 23,600 tons last year and 58,200 tons in the 7-month period in 1967. Most of Norway's exports in January-July this year went to France, Poland, Sweden, and the United Kingdom.

Table 8.--U.S. imports of fish meal as a percent of total fish meal available in the United States[1], by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969
				Percent				
January	89.8	88.9	93.6	83.3	84.5	88.0	97.3	91.9
February	83.9	93.2	93.9	89.8	91.6	91.9	94.6	89.6
March	81.5	93.8	92.8	93.4	85.7	93.7	92.4	91.9
April	73.7	76.0	87.4	77.8	77.8	83.3	84.2	82.2
May	38.4	43.6	65.0	54.8	63.3	69.4	78.7	61.0
June	30.2	34.4	41.3	47.8	55.2	54.8	72.5	62.2
July	31.8	52.6	39.0	27.2	57.3	56.7	67.4	49.7
August	41.2	50.2	52.1	24.9	65.4	69.0	70.7	36.8
September	30.2	58.8	59.9	24.4	65.1	73.3	62.5	
October	26.1	62.9	69.6	28.1	76.3	81.5	70.7	
November	53.8	56.5	70.6	32.0	65.3	80.4	83.3	
December	87.6	74.8	83.1	52.4	72.0	88.6	90.1	
Average[2]	45.8	60.9	66.1	52.8	67.8	76.4	79.0	

[1]Production and imports.
[2]Weighted average.

World Fish Meal Production--Down 6 Percent from 1968

World production of fish meal in January-July 1969 was an estimated 2,120,000 metric tons (2,336,900 short tons)--down 6 percent from the same period last year but up 6 percent from the 1964-68 average (table 9). These comparisons do not include Mainland China, Japan, or the U.S.S.R. Major countries producing less in the first 7 months of 1969 than in 1968 were Chile, Denmark, Norway, Peru, South Africa, and South West Africa. FEO[2] countries accounted for over three-fourths of the decline in world meal production.

FEO countries made about 81 percent of the reported world meal in the first 7 months of 1969--the same as last year (table 9). Peru produced 48 percent of world meal--slightly above last year. The United States made 5 percent of the world's fish meal--about the same as in previous years.

FEO Production--Down 6 Percent from 1968

FEO countries produced an estimated 1,725,600 metric tons (1,902,100 short tons) of fish meal in January-July 1969--down 6 percent from 1968 but up 5 percent from the 1964-68 average (table 9). Peru produced 1,011,100 metric tons (1,114,500 short tons) or 59 percent of total FEO production. This amount was 4 percent less than the same period last year. The fishing season for most of Peru closed on May 31, 1969, and reopened September 1. Production of fish meal during this period was 19,600 metric tons--down two-fifths from the same period last year.

Norway's production in the first 7 months of 1969 was 28 percent below last year, continuing to reflect poor herring catches. Landings of herring through July were down nearly three-fourths from last year. Landings of capelin, Norway pout, and other industrial fishes were up one-fifth from last year and helped to partially offset the decline in herring.

[2] Fishmeal Exporters Organization; member countries are Angola, Chile, Iceland, Norway, Peru, South Africa, and South West Africa.

Table 9.--FEO[1] and total world production of fish meal, January-July, 1964-68 average, 1968, and 1969

Country	1964-68 average		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
Angola	27.0	1.6	27.6	1.5	[3]49.8	2.9
Chile	101.1	6.2	127.0	6.9	110.3	6.4
Iceland	64.0	3.9	39.8	2.2	53.3	3.1
Norway	230.5	14.0	254.6	13.9	183.1	10.6
Peru	978.8	59.5	1,048.9	57.3	1,011.1	58.6
South Africa and South West Africa	242.6	14.8	333.8	18.2	318.0	18.4
Total FEO[4]	1,644.1	100.0	1,831.6	100.0	[3]1,725.6	100.0
Total world[5]	1,996.3		2,257.5		2,120.0	
Percent FEO is of world		82.4		81.1		81.4

[1]Fishmeal Exporters Organization.
[2]Preliminary.
[3]Estimated
[4]Figures may not add to total because of rounding.
[5]FEO countries plus Belgium, Canada, Denmark, France, Sweden, the United Kingdom, the United States, and West Germany. Japan and the U.S.S.R. are not included for 1968 and 1969.

FEO Exports--Down 5 Percent from Last Year

FEO countries exported an estimated 1,795,200 metric tons (1,978,800 short tons) of fish meal in January-July--down 5 percent from 1968 but up 21 percent from the 1964-68 average (tables 10 and 11). Exports from Peru were down slightly from last year, whereas Norway's exports were down one-third and exports from South Africa and South West Africa were down one-fifth (table 11). Exports from Chile in the 7-month period were up one-third over last year, and we estimate that exports from Angola will be over twice what they were last year.

Whereas total FEO and Peruvian exports for January-July were down slightly from last year, exports to the EC[3] countries were up (table 12). FEO exports to the Common Market were up nearly 10 percent over 1968, and exports from Peru were up 20 percent. In January-July 1969, over two-fifths of Peru's exports went to the EC countries--compared to one-third in 1968.

[3]European Communities; also referred to as the Common Market; formerly European Economic Community.

Table 10.--Total FEO[1] exports of fish meal, and FEO exports to the United States, by month, 1964-68 average, 1968, and 1969

Month	1964-68 average			1968			1969[2]		
	Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]	
	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent
January	208.8	31.4	15.0	279.5	79.0	28.3	214.9	18.6	8.6
February	195.2	29.0	14.9	283.8	41.5	14.6	244.7	18.9	7.7
March	232.0	41.6	18.4	260.9	44.7	17.1	[4]278.6	35.7	12.8
April	213.6	40.9	19.1	259.8	52.8	20.3	[4]280.2	47.8	17.0
May	211.6	38.0	18.0	246.4	56.7	23.0	[4]305.6	37.3	12.2
June	208.7	40.4	19.4	277.8	68.7	24.7	[4]239.6	44.8	18.7
July	212.0	38.0	17.9	277.5	77.0	27.7	[4]229.6	28.3	12.3
August	174.6	44.0	25.2	198.9	71.0	35.7			
September	162.7	29.5	18.1	230.1	37.0	16.1			
October	170.8	23.8	13.9	248.4	35.5	14.3			
November	190.7	32.6	17.1	287.8	59.7	20.8			
December	231.8	41.0	17.7	291.4	84.6	29.0			
Total[5]	2,394.5	430.4	18.0	3,142.3	708.2	22.5			

[1]Fishmeal Exporters Organization: members are those countries listed in table 9.
[2]Preliminary.
[3]Based on imports of fish meal from FEO countries as reported by the U.S. Department of Commerce, Bureau of the Census.
[4]Estimated.
[5]Figures may not add to total because of rounding.

Table 11.--Total FEO[1] exports of fish meal, and FEO exports to the United States by member country, January-July, 1964-68 average, 1968, and 1968

Country	1964-68 average			1968			1969[2]		
	Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]		Total FEO exports	FEO exports to the United States[3]	
	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent	Thousand metric tons	Thousand metric tons	Percent
Angola	27.1	0.1	-	24.3	-	-	[4]53.6	-	-
Chile	78.7	20.8	26.4	81.8	37.8	46.2	109.8	46.6	42.4
Iceland	67.8	-	-	44.1	-	-	47.7	-	-
Norway	176.7	15.6	8.8	263.8	21.4	8.1	175.4	2.8	1.6
Peru	987.7	219.7	22.2	1,255.2	361.4	28.8	1,234.1	182.0	14.7
South Africa and South West Africa	143.9	3.2	2.2	216.8	-	-	174.5	-	-
Total[5]	1,481.9	259.2	17.5	1,885.9	420.5	22.3	1,795.2	231.4	12.9

[1]Fishmeal Exporters Organization: members are those countries listed in the table.
[2]Preliminary.
[3]Based on imports of fish meal from FEO countries as reported by the U.S. Department of Commerce, Bureau of the Census.
[4]Estimated.
[5]Figures may not add to total because of rounding.

Table 12.--FEO[1] exports of fish meal to the EC (European Communities), the United States, and other countries, January-July, 1967, 1968, and 1969

Country	1967		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
EC						
Belgium	41.6	2.9	38.2	2.0	39.3	2.2
France	44.6	3.1	45.2	2.4	41.6	2.3
Germany, West	247.7	17.0	323.4	17.1	372.0	20.7
Italy	71.9	5.0	73.8	3.9	71.4	4.0
Netherlands	99.3	6.8	141.4	7.5	158.4	8.8
Total[3]	(505.2)	(34.8)	(622.0)	(33.0)	(682.7)	(38.0)
United States	287.6	19.8	413.5	21.9	221.6	12.4
Other						
Australia	7.8	0.5	16.0	0.8	15.0	0.8
Czechoslovakia	39.2	2.7	24.1	1.3	25.8	1.4
Finland	11.7	0.8	17.6	0.9	18.7	1.0
Germany, East	64.3	4.4	60.8	3.2	63.1	3.5
Hungary	5.1	0.4	15.2	0.8	25.0	1.4
Japan	46.5	3.2	92.0	4.9	73.9	4.1
Mexico	29.3	2.0	51.6	2.7	41.5	2.3
Poland	40.3	2.8	63.0	3.3	67.7	3.8
Spain	63.4	4.4	65.6	3.5	100.5	5.6
Sweden	26.6	1.8	33.1	1.8	36.4	2.0
United Kingdom	198.3	13.7	255.7	13.6	220.0	12.3
Venezuela	13.6	0.9	19.2	1.0	19.7	1.1
Yugoslavia	40.4	2.8	27.6	1.5	42.8	2.4
Other	72.8	5.0	108.9	5.8	140.8	7.8
Total[3]	(659.3)	(45.4)	(850.4)	(45.1)	(890.9)	(49.6)
Total	1,452.1	100.0	1,885.9	100.0	1,795.2	100.0

[1]Fishmeal Exporters Organization.
[2]Figures for Angola were estimated.
[3]Figures may not add to total because of rounding.

More of Peru's fish meal exports went to West Germany in the first 7 months of this year than to any other country. About 22 percent of Peru's exports went to that country-compared to 18 percent last year. Peru's exports to West Germany were increased by one-fifth over last year, to Spain by more than one-half, and to the United Kingdom by more than four-fifths. Peru's exports to the United States were about half of what they were last year. Although Peru lost a large share of the United States market, she sold additional meal to Europe so that total shipments were nearly the same as last year.

West Germany has grown steadily as a major market for fish meal. In 1966, West Germany imported 361,100 metric tons of fish meal. By 1968 imports had grown 44 percent to 520,400 metric tons. In the first 7 months of 1969, West Germany imported 360,700 tons--up 15 percent over last year and up 37 percent over imports in the first 7 months of 1967.

FEO Stocks on August 1--Lowest Since January 1966

Stocks of fish meal held by FEO countries on August 1, 1969, were 360,400 metric tons (397,300 short tons)--down 44 percent from the same time last year and the lowest since January 1, 1966 (table 13). FEO stocks increased from 558,800 metric tons at the beginning of 1969 to an estimated 660,100 tons on May 1. In the next 3 months, exports exceeded production by about 300,000 tons, and holdings declined steadily to the August 1 figure.

Peru's stocks were only 39 percent of total FEO stocks on August 1--compared to 56 percent last year (table 13). Peru's stocks on September 1 of this year are estimated to be about 49,000 metric tons--the lowest since October 1965 and one-tenth of the amount held on May 1 of this year.

Stocks held by South Africa and South West Africa on August 1 were the highest in nearly 2 years and over three times greater than stocks held on February 1 this year. These stocks made up nearly one-third of total FEO stocks on August 1--compared to about one-seventh last year.

Table 13.--FEO[1] fish meal stocks held August 1, 1964-68 average, 1968, and 1969

Country	1964-68 average		1968		1969[2]	
	Thousand metric tons	Percent	Thousand metric tons	Percent	Thousand metric tons	Percent
Angola	3.6	0.6	10.3	1.6	[3]11.9	3.3
Chile	32.2	5.7	57.0	8.9	24.1	6.7
Iceland	19.8	3.5	6.8	1.1	4.2	1.2
Norway	127.2	22.4	116.5	18.1	63.2	17.5
Peru	295.6	52.1	362.0	56.3	139.7	38.8
South Africa and South West Africa	88.8	15.7	90.3	14.0	117.2	32.5
Total[4]	567.2	100.0	642.9	100.0	[3]360.4	100.0

[1]Fishmeal Exporters Organization: members are those countries listed in the table.
[2]Preliminary.
[3]Estimated.
[4]Figures may not add to total because of rounding.

Broiler Chick Placements--Up 7 Percent from Last Year

About 1.7 billion broiler chicks were placed on farms in the leading broiler-producing States the first 7 months of 1969 (table 14). These placements were 7 percent more than the same period last year and 12 percent more than the most recent 5-year average. Placements in August were about 266 million chicks--again 7 percent more than last August.

Prices paid for broilers at the farm climbed from an average of 12.8 cents per pound in October 1968 to 15.3 cents per pound in March 1969 (table 14). They dipped slightly in April, and then continued to climb to 17.3 cents in July. The July average was about 12 percent more than the same month last year. The average price for August was 16.5 cents per pound--11 percent above last year. The increased demand for broilers, as reflected in increasing broiler placements and prices, has not brought about an increase in the use of fish meal because prices of fish meal have been relatively high whereas prices for competing ingredients such as soybean meal generally have been below last year.

Table 14.--Broiler chick placements in 22 States, and average broiler price at the farm, by month, 1966-69

Month	1966		1967		1968		1969[1]	
	Chicks placed	Broiler price	Chicks placed	Broiler price	Chicks placed	Broiler price	Chicks placed	Broiler price
	Million	Cents/lb.	Million	Cents/lb.	Million	Cents/lb.	Million	Cents/lb.
January	191.6	16.3	192.0	13.9	196.4	13.5	200.3	14.3
February	199.0	16.4	204.1	15.4	199.5	14.6	210.9	15.0
March	201.3	17.2	217.6	14.3	261.0	14.6	282.3	15.3
April	269.6	15.8	272.9	13.8	215.1	14.2	234.2	14.7
May	217.8	16.7	217.6	13.3	274.1	14.6	296.1	14.8
June	216.6	16.1	214.8	13.5	218.7	15.0	235.3	15.2
July	262.0	16.1	259.6	14.7	208.5	15.5	220.8	17.3
August	192.6	15.7	199.9	12.9	248.5	14.8	265.9	16.5
September	187.0	14.6	224.7	12.6	178.3	14.1		
October	235.3	13.2	175.0	12.2	184.6	12.8		
November	188.8	13.5	185.7	11.5	242.1	13.6		
December	232.7	12.0	230.8	11.6	194.8	13.4		
Total placements[2] and average price[3]	2,594.4	15.3	2,594.7	13.4	2,621.7	14.3		

[1] Preliminary.
[2] Figures may not add to total because of rounding.
[3] Weighted average.

Sources: Commercial Broilers: Annual Production and Weekly Placements, U.S. Department of Agriculture, Statistical Reporting Service, and Poultry and Egg Situation, U.S. Department of Agriculture, Economic Research Service.

Soybean Meal Prices--Consistently Below Last Year

Soybean meal is a major competitor of fish meal in the protein feed market. The average monthly price of 50 percent soybean meal at Decatur, Ill., was consistently below prices in 1968 for the first 8 months of this year (table 15). The average price for June was about $1.00 per ton lower than June of last year, the price for July about $6.00 below the same month last year, and the price for August about $10.00 lower. Compared with prices of fish meal, prices of soybean meal have favored the use of that ingredient in the feed mix since the first of the year. In August, the ratio between the price of Peruvian fish meal and the price of soybean meal was 2.05:1--the highest ratio since the last half of 1965 and the first quarter of 1966 when the ratio averaged well above 2.05:1 and when imports were less than half those in the same period the year before.

Table 15.--Average monthly price of soybean meal[1] at Decatur, Ill., 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	85.40	75.40	85.00	89.30	81.30	79.50
February	82.60	77.20	86.20	85.20	80.20	78.40
March	82.30	76.10	80.00	83.70	80.40	80.10
April	80.00	78.40	82.40	80.70	80.90	81.30
May	74.20	77.70	89.00	80.10	81.90	84.90
June	73.20	85.10	101.00	87.20	89.10	88.20
July	72.90	86.00	104.10	85.00	92.00	86.20
August	71.00	80.50	106.10	86.90	94.50	84.10
September	77.10	89.20	97.90	87.60	95.50	
October	76.80	80.80	91.50	78.20	85.30	
November	72.70	84.50	86.40	78.10	79.40	
December	75.50	78.30	92.70	79.40	79.40	
Average[2]	77.00	80.75	91.85	83.45	85.00	

[1]50 percent protein, bulk.
[2]Simple average.

Source: Feed Market News, U.S. Department of Agriculture, Consumer and Marketing Service, Grain Division.

Table 16.--Ratio of Peruvian fish meal price[1] to soybean meal price[2] by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969
	Price ratio							
January	1.78	1.67	1.56	1.88	2.04	1.66	1.48	1.75
February	1.96	1.60	1.61	1.88	1.98	1.64	1.48	1.80
March	1.91	1.60	1.61	1.88	2.07	1.61	1.44	1.75
April	1.91	1.60	1.58	1.89	1.86	1.62	1.42	1.80
May	1.80	1.61	1.70	1.98	1.75	1.59	1.61	1.90
June	1.64	1.55	1.72	1.96	1.54	1.50	1.57	1.90
July	1.57	1.49	1.78	2.01	1.55	1.55	1.56	2.01
August	1.55	1.40	1.87	2.25	1.52	1.51	1.46	2.05
September	1.38	1.42	1.75	2.04	1.56	1.47	1.39	
October	1.66	1.53	1.82	2.29	1.56	1.59	1.51	
November	1.66	1.51	1.95	2.20	1.68	1.55	1.65	
December	1.67	1.55	1.87	2.30	1.64	1.52	1.74	
Average	1.69	1.54	1.73	2.05	1.71	1.57	1.52	

[1]F.o.b. East Coast ports for 65 percent protein meal, bagged, as quoted at New York City.
[2]Wholesale at Decatur, Ill., for 50 percent solvent meal, bulk.

Prices

Prices of Menhaden Meal--Still Around $170

Prices of bagged menhaden meal as quoted by brokers at New York City declined from an average of $174.00 the last 2 weeks in May to an average of $168.90 per ton f.o.b. East Coast and Gulf points in August (table 17 and fig. 3). Prices rose slightly the first part of September and by the third week averaged $172 per ton. Prices of menhaden meal quoted at Chicago and New Orleans were slightly lower.

Prices for 60 percent tuna and mackerel meal at Los Angeles dropped from a high of $129 per ton, bulk, in February to about $120 in April. By July and August, prices were averaging $141 per ton--about $20 above prices at the same time last year.

Table 17.--Average monthly price of menhaden meal[1] f.o.b. East Coast points, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	132.00	144.15	[2]179.80	153.10	[2]131.00	149.25
February	130.00	146.25	[2]172.55	[2]154.00	[2]131.00	153.00
March	128.25	150.00	[2]170.60	[2]154.00	[2]131.00	153.00
April	128.00	153.00	[2]163.00	135.00	[2]131.00	[2]154.00
May	128.25	156.00	[2]153.80	135.80	[2]131.00	174.00
June	129.80	160.90	160.35	139.00	149.00	172.60
July	130.90	170.25	164.00	137.40	149.65	171.90
August	131.00	172.10	169.00	137.10	149.00	168.90
September	132.90	175.00	166.20	136.75	145.00	171.60
October	140.20	185.40	160.00	136.00	141.60	
November	140.75	186.00	151.15	[2]132.00	140.50	
December	140.75	186.00	153.10	[2]131.60	145.10	
Average[3]	131.45	168.50	161.05	136.55	145.30	

[1]60 percent protein, bagged, as quoted at New York City.
[2]Nominal price as presented in the Oil, Paint and Drug Reporter.
[3]Average weighted by monthly production of menhaden meal.

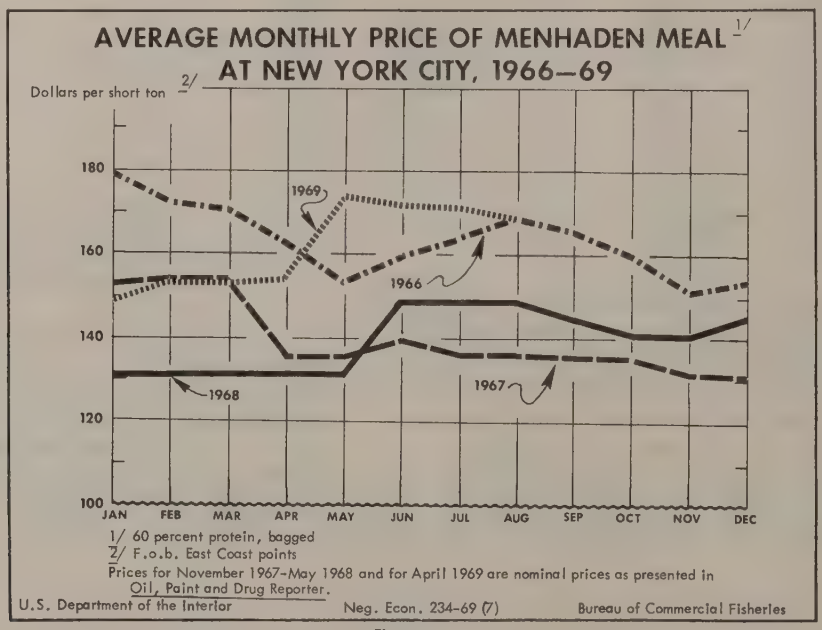


Figure 3

Prices of Peruvian Fish Meal Remain Above $170

The price of bagged fish meal from Peru as quoted by brokers in New York City rose from an average of $139.50 per ton at the beginning of the year to about $173.00 per ton the last week of June (table 18 and fig. 4). Prices remained at this level throughout July and most of August, dropping to $172 in September. Prices in Chicago were about the same. In New Orleans, supplies of Peruvian fish meal have been reported as either very light or exhausted since the last part of June. Prices on the West Coast have also remained at a high level. In Seattle, prices of Peruvian meal averaged $180 per ton, bagged, in June and were about $185 in July and August. The August prices were about $35 over last year. U.S. prices have remained at a relatively high level owing to the short supplies of fish meal throughout the country.

Spot prices for Peruvian fish meal at Hamburg, Germany rose from an average of $135 per metric ton, c. & f. European ports, in March of this year to $181 in July and August. In the first half of September, prices dropped to an average of $168 per metric ton, then increased to $184 per ton the last half of September.

Table 18.--Average monthly price of Peruvian fish meal[1] f.o.b. East Coast ports, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	133.25	141.60	173.00	148.20	120.20	139.50
February	133.25	144.90	170.90	140.00	119.00	141.00
March	132.40	142.70	165.80	134.50	116.00	140.50
April	126.00	148.40	153.75	130.50	115.20	146.80
May	126.10	153.75	155.40	127.70	131.90	161.00
June	125.70	166.50	155.50	131.25	140.00	168.00
July	130.00	172.90	161.00	131.60	143.20	173.50
August	132.90	181.00	161.00	131.50	137.90	172.10
September	134.70	182.50	152.25	128.90	132.75	172.00
October	140.00	184.90	143.10	124.30	129.20	
November	141.50	186.00	144.80	121.00	131.00	
December	141.50	180.25	152.50	121.00	138.10	
Average[2]	131.95	154.65	156.40	130.15	130.95	

[1]65 percent protein, bagged, as quoted at New York City.
[2]Average weighted by monthly imports of Peruvian fish meal.

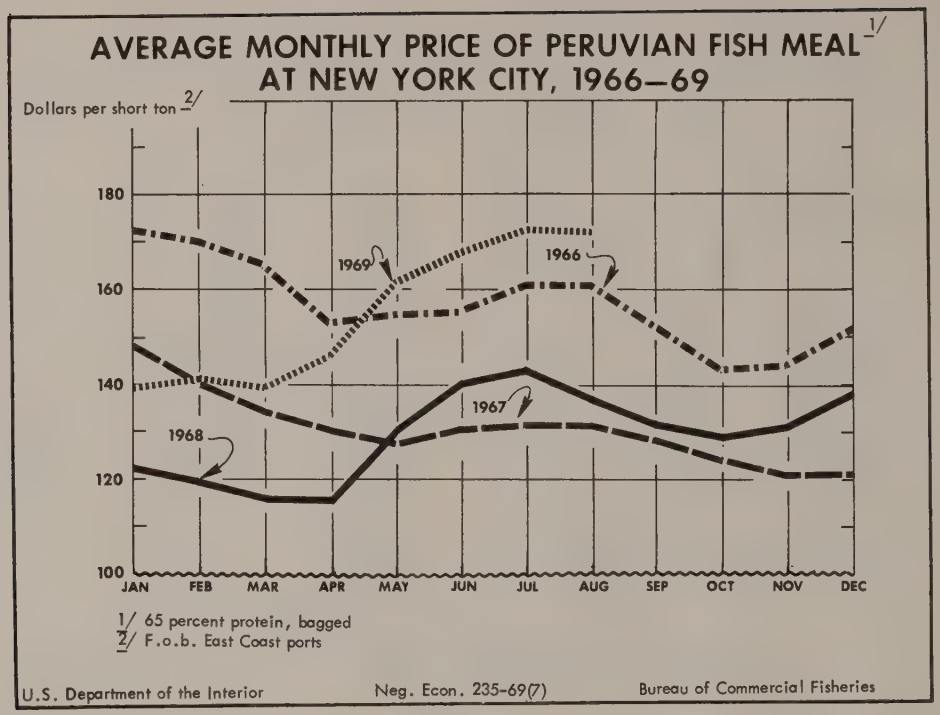


Figure 4

OUTLOOK: OCTOBER-DECEMBER 1968

Demand

We estimate that feed manufacturers will use 120,000 to 140,000 tons of fish meal in the fourth quarter of 1969--compared to 264,000 tons in the fourth quarter of last year.

As mentioned in the Review section, prices of bagged fish meal in the United States have been averaging above $170 per ton in recent weeks. If prices continue at or above this level through the last 3 months of this year, the use of fish meal by feed manufacturers can be expected to fall below last year's use in the fourth quarter. Even though the U.S.D.A. has estimated broiler placements in the last 3 months of 1969 to be 10 to 15 percent over last year, we estimate fish meal consumption will be about half of last year's apparent consumption in the fourth quarter of 264,000 tons.

The situation in May-August this year and the anticipated situation in October-December could be likened to the last half of 1965 and the first 2 months of 1966 when the price of Peruvian fish meal at New York City averaged above $170 per ton and apparent consumption was well below average. A lower amount of meal was consumed in spite of the fact that broiler placements were running well ahead of the previous year.

U.S. production of fish meal through August is running about the same as last year. We estimate production in the fourth quarter to be 37,500 tons to 42,500 tons--compared to 45,400 tons last year. Total production for the year is estimated to be 215,000 to 225,000 tons. Menhaden meal will comprise 60 to 65 percent of total production in the fourth quarter.

In our previous report, we estimated that imports of fish meal for the third quarter of this year would be 90,000 to 110,000 tons--down considerably from the 228,400 tons imported in the third quarter of last year. Imports in July and August of the third quarter totaled 55,100 tons--compared to 179,000 tons in the same months last year. If prices continue to be above $170 per ton, we estimate that 75,000 tc 100,000 tons of fish meal will be imported in the fourth quarter of this year--compared to 218,700 tons last year. Total imports for 1969 are estimated to be less than 445,000 tons or about half of last year's imports.

If imports for the fourth quarter are 75,000 to 100,000 tons and production is 37,500 tons to 42,500 tons, then total supplies for the fourth quarter will be 112.500 tons to 142,500 tons.

If total imports for 1969 are 420,000 to 445,000 tons and production is 215,000 to 225,000 tons, then total supplies for the year will be 635,000 to 670,000 tons. This amount would be about 40 percent below last year's record high supplies of 1,081,900 tons. Last year about four-fifths of these supplies were imports, whereas this year only two-thirds is expected to be imports.

As mentioned before, Peru has traditionally been the major supplier of fish meal to the United States. Last year in January-August, 78 percent of United States imports were from Peru--compared to 65 percent in the same period this year. Last year in August, 68 percent of United States imports were from Peru compared to only 16 percent in August this year. We expect that imports from Peru in the fourth quarter of 1969 will comprise less than two-thirds of total imports. Canada's share of imports is expected to be more than the 9 percent last year.

We expect that a greater percent of Peru's fish meal will go to Europe in the final 3 months of this year than last year when 61 percent went there. A continued strong demand for fish meal in the face of continued high prices will encourage Peru's exports to Europe.

Prices

Three major factors will influence U.S. fish meal prices in the fourth quarter. One factor is the stocks situation in Peru--traditionally the major holder of fish meal and the major supplier of fish meal to the United States. Stocks of fish meal on September 1 were estimated to be 49,000 metric tons. According to the latest reports, production of fish meal in September is not expected to be over 100,000 metric tons. Exports are expected to be about the same as production, meaning that Peru's stocks at the beginning of the fourth quarter will be about 50,000 metric tons or only one-twelfth of stocks held at the same time last year. These low stocks will tend to hold fish meal prices up.

A second factor is the stocks situation in the United States. Although stocks of fish meal are not reported in the United States, feed market observers report that stocks of imported and domestic meal are quite low. These low U.S. stocks also will have a bullish effect on prices.

The third factor is the relation between the price of fish meal and prices of various protein ingredients. If fish meal is to remain competitive with soybean meal and other competing ingredients in the feed mix, prices of fish meal will have to come down from their present level.

FISH SOLUBLES

REVIEW: JANUARY-JULY 1969

Supply

Supplies of Fish Solubles--Up 12 Percent from 1968

Total U.S. supplies of fish solubles (excluding stocks which are not reported) in January-July of this year were about 44,400 tons--up 13 percent from 1968 but down 12 percent from the 1964-68 average (table 19). Nearly all the fish solubles were produced domestically.

Production of Fish Solubles--Up 16 Percent from 1968

The United States produced about 44,300 tons of fish solubles in the first 7 months of 1969--up 16 percent from last year but down 7 percent from the most recent 5-year average (table 19). Three-fourths of the domestic solubles was made from menhaden in the 7-month period, and over four-fifths of that production was in the Gulf Coast area.

Imports of Fish Solubles--Only 80 Tons in 7 Months

U.S. imports of fish solubles have never been very great. However, imports the first 7 months of 1969 were the lowest on record--80 tons compared to 1,200 tons in 1968 and a 5-year average of 2,900 tons (table 19). Slightly over four-fifths of the January-July imports came from Canada in 1969--compared to two-fifths in the same period last year.

Table 19.--U.S. production, imports, and total supplies of fish solubles, by month, 1964-68 average, 1968, and 1969

Month	1964-68 average			1968			1969[1]		
	Production	Imports	Total supplies	Production	Imports	Total supplies	Production	Imports	Total supplies
	Thousand short tons								
January	1.2	0.4	1.6	0.5	0.1	0.6	0.8	[2]	0.8
February	1.1	0.5	1.6	0.6	0.1	0.7	1.4	-	1.4
March	1.9	0.3	2.1	1.6	0.7	2.3	1.4	[2]	1.5
April	4.0	0.8	4.8	4.0	0.1	4.1	5.1	-	5.1
May	9.0	0.4	9.4	6.2	0.1	6.3	11.1	[2]	11.1
June	15.2	0.2	15.4	10.7	0.1	10.8	12.5	-	12.5
July	15.4	0.4	15.8	14.3	0.1	14.4	11.9	[2]	11.9
August	13.9	0.1	14.0	11.7	0.1	11.8	11.0	-	11.0
September	8.8	0.2	9.0	8.9	0.2	9.0			
October	5.6	0.2	5.7	5.9	0.2	6.1			
November	5.1	0.4	5.5	6.1	[2]	6.1			
December	2.4	0.1	2.6	1.2	0.1	1.3			
Total[3]	83.6	3.9	87.5	71.8	1.8	73.6			

[1]Preliminary.
[2]Less than 50 tons.
[3]Figures may not add to total because of rounding.

Prices of menhaden solubles in the first 8 months of 1969 were $1.00 to $5.00 per ton below the annual average of last year and over $10.00 lower than the 1964-68 average (table 20 and fig. 5). The May average of $47.50 per ton was the lowest price since July of 1961. Prices then increased steadily to an average of $51.25 in July and the first week in August. Prices then decreased to an average of $48.75 per ton and stayed at that level through September. These lower prices indicate a weak demand for solubles in January-September and probably were a major factor contributing to the extremely low imports in that period.

Table 20.--Average monthly price of menhaden solubles[1] f.o.b. East Coast plants, 1964-69

Month	1964	1965	1966	1967	1968	1969
	Dollars per short ton					
January	75.00	58.60	66.25	80.85	60.50	51.25
February	75.00	59.40	66.50	79.00	63.75	51.25
March	62.25	61.25	66.70	70.75	61.25	49.40
April	62.25	56.25	68.75	64.60	56.25	47.75
May	62.25	53.75	68.75	64.00	54.05	47.50
June	62.25	55.75	68.75	64.40	53.75	49.75
July	62.25	56.85	68.75	64.05	53.50	51.25
August	61.95	60.00	68.75	62.85	52.50	49.40
September	61.20	61.25	72.50	61.25	51.90	48.75
October	61.05	63.95	78.75	60.75	51.50	
November	61.25	65.25	79.25	60.00	51.55	
December	61.25	66.25	81.90	60.00	51.25	
Average[1]	62.00	58.30	70.75	63.25	52.90	

[1]In tank cars; prices quoted at New York City.
[2]Weighted average.

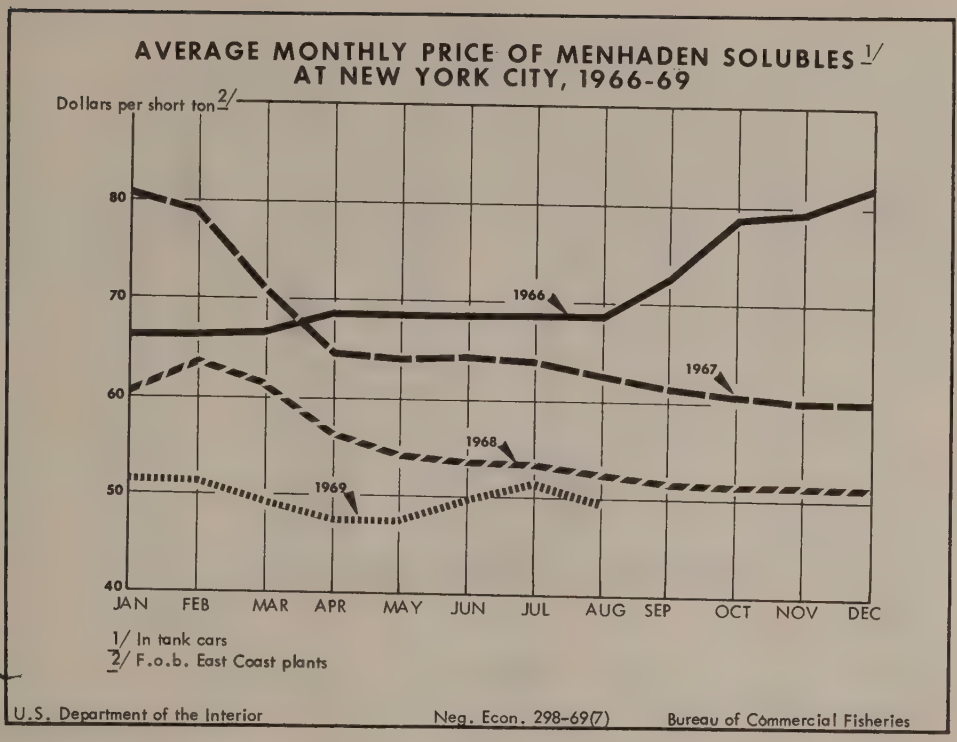


Figure 5

OUTLOOK: OCTOBER-DECEMBER 1969

Demand

Prices of menhaden solubles declined from an average of $51.25 per ton f.o.b. East Coast plants in July to $49.40 per ton in August. By September, prices had dropped to an average of $48.75 per ton. At these relatively low prices, menhaden solubles should be a good buy in the fourth quarter of this year. In each of the fourth quarters of 1966, 1967, and 1968, apparent consumption was about 14,000 tons, whereas average prices in those quarters were $80.00, $60.25, and $51.50 per ton, respectively. These figures indicate that consumption of solubles apparently is not influenced by price, at least for prices between $50 and $80 per ton and when prices of fish meal are at least $20 below current prices. However, the price margin between fish solubles and fish meal could be large enough now to prompt feed formulators to include more solubles in their rations.

Based on production in the first part of the year, we estimate that 11,000 to 14,000 tons of fish solubles will be made in the fourth quarter of 1969, and that about two-thirds of these solubles will come from menhaden. These estimates are in line with figures for the last 5 years. Imports of solubles are expected to be less than 100 tons in October-December--compared to 275 tons last year.

FISH OIL

REVIEW: JANUARY-JULY 1969

Supply

Fish Oil Stocks on August 1--Down 28 Percent from Last Year

The Bureau of the Census reports that stocks of fish oil (including mammal oil other than sperm) on August 1, 1969, were 74.4 million pounds (table 21). The August 1 stocks were down 28 percent from the same time last year and down 18 percent from the 1964-68 average for August 1. They were 29 percent lower than at the beginning of the year and the third lowest on record for that date. Heavier than usual exports have caused the lower stocks.

U.S. Production--Up 13 Percent from Last Year

The United States produced an estimated 84.7 million pounds of fish oil in January-July 1969--up 13 percent from 1968 but down 7 percent from the 1964-68 average for January-July (tables 22 and 23). These figures include a small amount of whale oil. About 92 percent of the fish oil was made from menhaden in the first 7 months this year--compared to 87 percent last year (table 23). Like fish meal and solubles, most of the oil was produced in the Gulf Coast area.

Table 21.--U.S. stocks of fish oil at the beginning of the month, 1964-69[1]

Month	1964	1965	1966	1967	1968	1969[2]
			Million pounds			
January	96.9	70.9	100.4	99.4	80.0	104.6
February	60.4	68.6	85.4	97.2	83.3	95.6
March	47.0	55.2	75.0	90.8	61.0	67.3
April	42.2	50.4	60.5	62.2	55.8	53.9
May	43.9	54.6	60.3	73.4	64.4	39.1
June	46.7	69.0	63.1	97.4	69.1	61.0
July	55.5	80.9	64.7	100.7	82.4	61.9
August	66.8	103.3	80.4	102.4	103.6	74.4
September	78.0	136.2	87.9	103.2	122.5	
October	87.7	110.9	111.0	95.9	132.9	
November	66.9	101.7	102.1	102.4	123.0	
December	75.2	111.4	120.0	99.4	104.1	
Average	63.9	84.4	84.2	93.7	90.2	

[1]Includes mammal oil other than sperm oil, and includes hydrogenated fats and other fats and oils "in process."
[2]Preliminary.

Source: Current Industrial Reports: Fats and Oils, Series M20K, U.S. Department of Commerce, Bureau of the Census.

Table 22.--U.S. production of fish oil by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969[1]
				Million pounds				
January	0.8	0.5	0.5	0.6	0.4	1.2	0.6	0.9
February	0.4	0.4	0.2	0.5	0.2	0.6	0.3	0.5
March	0.4	0.4	0.7	0.7	1.0	0.9	0.6	0.6
April	5.7	6.5	4.4	10.6	5.5	3.6	4.2	5.4
May	33.4	33.5	29.9	23.2	19.3	9.4	10.3	20.8
June	54.9	28.2	42.9	41.6	34.7	20.5	22.0	27.2
July	47.7	29.0	33.8	41.6	29.6	21.6	36.8	29.3
August	33.4	34.6	28.4	37.8	22.5	22.4	31.1	29.0
September	31.2	21.2	19.8	18.1	20.5	13.6	27.4	
October	39.0	15.0	5.6	9.5	7.8	9.3	21.0	
November	8.3	10.1	8.3	8.2	16.4	13.5	12.3	
December	0.7	6.4	5.7	3.1	6.8	5.8	6.5	
Total	255.9	185.8	180.2	195.5	164.7	122.4	173.1	

[1]Preliminary.

Table 23.--U.S. production of fish oil by raw material source, January-July, 1964-68 average, 1968, and 1969

Source	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Alewives	0.5	0.6	2	-	-	-
Groundfish	0.6	0.7	2	-	2	-
Herring	4.0	4.4	3.5	4.7	2	-
Menhaden	80.2	88.2	65.4	87.4	77.9	92.0
Tuna, mackerel, and anchovies	2.4	2.6	2.2	2.9	2.2	2.6
Unclassified	3.2	3.5	3.8	5.0	4.6	5.4
Total[3]	90.9	100.0	74.8	100.0	84.7	100.0

[1]Preliminary.
[2]Included in "unclassified."
[3]Figures may not add to total because of rounding.

Demand

U.S. Consumption of Fish Oil--4 Percent Above 1968

The United States used about 19.2 million pounds of fish oil in January-July 1969--up 4 percent from 1968 but down 16 percent from the 1964-68 average (table 24 and fig. 6). These figures include marine mammal oil other than sperm. In the United States, fish oil is used in such products as lubricants and protective coatings.

Exports of Fish Oil--Nearly 5 Times Last Year

The United States exported 97.4 million pounds of fish oil in the first 7 months of 1969--nearly five times more than last year and over four-fifths more than the 1964-68 average (tables 25 and 26). Most of the fish oil went to the Netherlands this year--65 percent compared to 17 percent last year (table 26). Three-fourths of the

oil went to Sweden last year, whereas this year only 9 percent went to that country. West Germany received about 8 million pounds of oil from the United States in January-July this year--compared to a negligible amount last year.

Exports of fish oil in August were 24.7 million pounds--3-1/2 times last year. Over a third of the August exports went to the Netherlands.

Table 24.--Industrial use of fish oil in the United States, by month, 1962-69[1]

Month	1962	1963	1964	1965	1966	1967	1968	1969[2]
	Million pounds							
January	5.2	5.0	3.9	3.2	2.4	2.9	2.6	1.8
February	5.0	3.8	3.9	3.2	3.5	2.8	2.6	3.1
March	5.3	3.9	3.9	3.3	3.3	2.8	3.0	3.1
April	5.3	4.0	4.6	3.4	3.5	4.1	2.5	3.2
May	5.5	4.2	4.2	3.0	3.7	3.1	2.6	1.9
June	6.3	4.7	4.0	4.0	3.8	3.3	2.5	3.9
July	5.0	5.0	3.4	3.2	2.7	3.0	2.7	2.2
August	5.0	4.6	4.7	4.5	3.7	3.1	2.2	
September	5.2	4.2	4.2	4.3	3.9	3.2	2.8	
October	5.3	5.0	3.8	3.9	2.5	2.4	2.5	
November	4.8	3.7	3.6	4.4	2.7	2.5	2.4	
December	5.0	4.0	3.5	4.1	3.1	2.6	1.6	
Total[3]	62.9	52.1	47.7	44.5	38.8	35.8	30.0	

[1]Includes mammal oil other than sperm oil.
[2]Preliminary.
[3]Figures may not add to total because of rounding.

Source: Current Industrial Reports: Fats and Oils, Series M20K, U.S. Department of Commerce, Bureau of the Census.

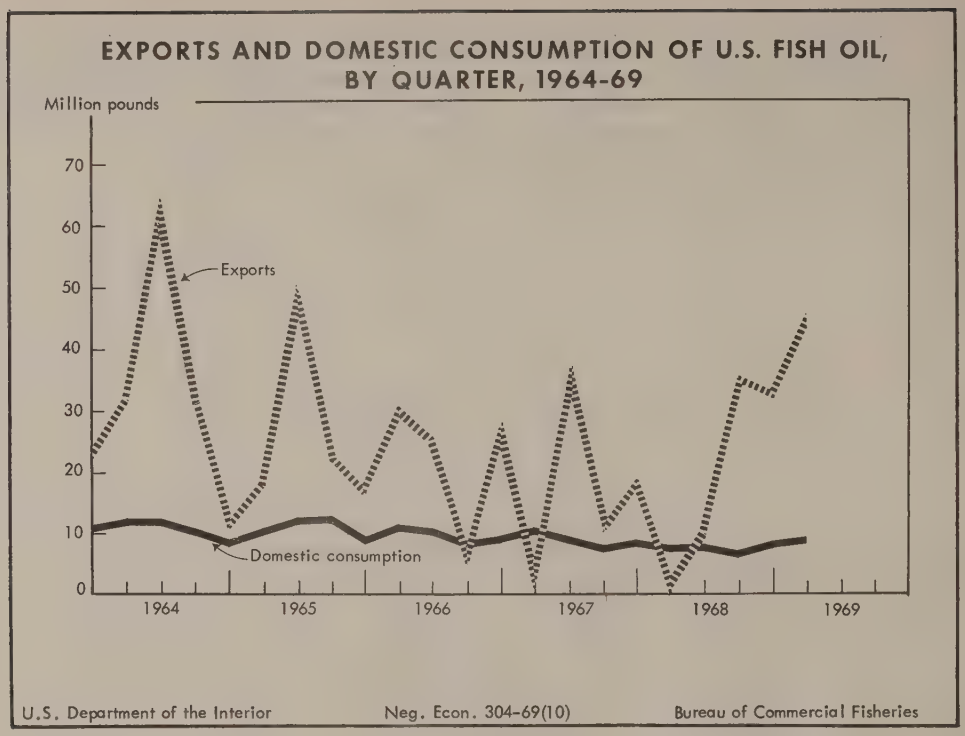


Figure 6

Table 25.--U.S. exports of fish oil by month, 1962-69

Month	1962	1963	1964	1965	1966	1967	1968	1969[1]
	Million pounds							
January	0.5	0.1	0.2	0.1	2.3	17.9	0.9	4.0
February	21.6	2.4	23.5	0.1	4.2	[2]	6.0	8.9
March	19.1	44.4	0.2	11.4	9.9	10.5	12.6	19.8
April	10.3	28.5	22.8	0.1	0.1	[2]	0.1	21.1
May	6.5	22.1	9.3	0.3	17.8	0.1	[2]	8.8
June	4.9	0.3	0.1	18.1	12.9	0.8	[2]	15.5
July	0.1	29.3	40.5	16.2	19.5	2.3	0.1	19.3
August	33.3	37.5	9.6	21.2	6.1	24.8	7.0	24.7
September	0.2	22.4	14.2	13.5	[2]	10.2	3.4	
October	26.1	41.9	19.8	10.8	4.3	5.7	11.4	
November	0.2	0.1	0.1	0.2	0.1	2.2	1.8	
December	0.2	33.3	11.1	11.8	0.1	2.3	21.8	
Total	123.0	262.3	151.4	103.8	77.3	76.8	65.1	

[1]Preliminary.
[2]Less that 50,000 pounds.

Table 26.--U.S. exports of fish oil by country of destination, January-July, 1964-68 average, 1968, and 1969[1]

Country	1964-68 average		1968		1969[1]	
	Million pounds	Percent	Million pounds	Percent	Million pounds	Percent
Canada	0.7	1.3	1.5	7.6	1.2	1.2
Netherlands	13.2	25.3	3.4	17.2	63.5	65.2
Sweden	19.4	37.2	14.9	75.2	8.4	8.6
United Kingdom	5.7	10.9	[2]	-	3.5	3.6
West Germany	5.5	10.5	[2]	-	8.1	8.3
Other	7.7	14.8	0.1	-	12.7	13.1
Total[3]	52.2	100.0	19.8	100.0	97.4	100.0

[1]Preliminary.
[2]Less than 50,000 pounds.
[3]Figures may not add to total because of rounding.

Prices

Average Price of Menhaden Oil--Highest in 1-1/2 Years

Prices of menhaden oil, as quoted by brokers at New York City, increased in the first part of 1969 to an average of 5.3 cents per pound f.o.b. East Coast and Gulf plants in April (table 27 and fig. 7). Prices then dropped to an average of 5.2 cents per pound in June, then increased to 5.65 cents per pound in August. In September, prices averaged around 6.1 cents per pound--the highest since February 1968. New York quotations for menhaden oil f.o.b. Gulf Coast plants were slightly lower.

Prices of fish oil in Europe also have increased significantly since the last part of 1968 and are the highest in 2 years. These rising prices, together with increased domestic use and exports, indicate an increased demand for U.S. fish oil.

Table 27.--Average monthly price of menhaden oil[1] f.o.b. East Coast plants, 1964-69

Month	1964	1965	1966	1967	1968	1969
			Cents per pound			
January	8.40	9.15	9.50	8.90	6.00	4.70
February	8.35	9.50	9.70	8.90	6.10	5.00
March	8.50	9.50	9.75	8.60	5.75	5.20
April	8.75	9.50	9.75	7.20	5.35	5.30
May	8.50	9.45	9.75	6.90	5.25	5.25
June	8.65	9.15	9.60	6.95	5.25	5.20
July	8.75	8.95	9.40	6.70	4.85	5.25
August	8.80	9.30	9.00	6.00	4.55	5.65
September	9.05	9.50	9.45	5.80	4.40	6.10
October	9.20	9.50	9.45	6.00	4.45	
November	9.40	9.50	9.20	6.00	4.40	
December	9.40	9.50	8.90	6.00	4.40	
Average[2]	8.80	9.25	9.40	6.40	4.70	

[1]Crude oil in tank cars; prices quoted at New York City.
[2]Weighted average.

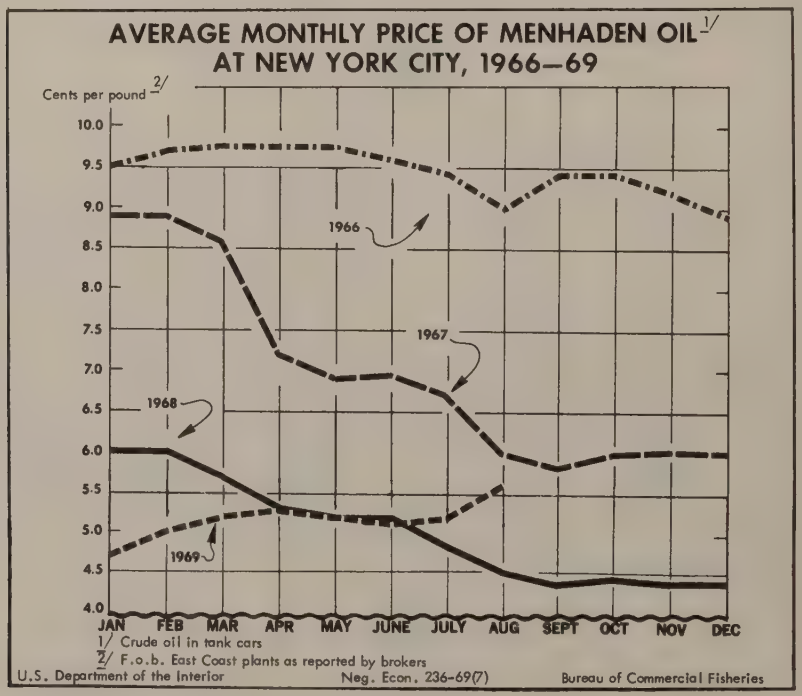


Figure 7

OUTLOOK: OCTOBER-DECEMBER 1969

Demand

Annual use of inedible fish oil as reported by the Bureau of the Census has declined steadily since 1961. With the exception of 1965, fourth quarter utilization has also declined steadily since 1961. The United States used 7.5 million pounds in the fourth quarter of 1967 and 6.5 million pounds in 1968. However, for the first time in 7 years, domestic use of fish oil in the first 7 months was more than use in the same period of the previous year. We estimate that utilization in the fourth quarter of this year will be more than the 6.5 million pounds used last year.

Annual exports of fish oil have declined steadily over the last 6 years. Exports in the fourth quarter declined from 75.3 million pounds in 1963 to 4.5 million pounds in 1966. Fourth quarter exports then increased to 10.2 million pounds in 1967 and 35 million pounds in 1968--the beginning of a new surge in fish oil exports. Exports in the first two quarters of 1969 were the highest for those two quarters in the last 6 years. Exports in the first 8 months of 1969 were over 4-1/2 times exports in the same period last year. The relation between recent prices of fish oil and other oils, such as soybean, palm kernel, linseed, and tung at Rotterdam, indicates that fish oil is a fairly good buy in Europe Thus, we expect exports of fish oil to continue strong through the rest of 1969. However, they may be lower in the fourth quarter than last year's 35 million pounds. Most of the exports will continue to go to the Netherlands.

Supply

We estimate that U.S. stocks of fish oil at the beginning of the fourth quarter will be about 80 million pounds or two-fifths below the same time last year. Production of fish oil in the fourth quarter is estimated to be 32-36 million pounds so that about 115 million pounds could be available for domestic consumption and export in the fourth quarter. If about 7 million pounds of fish oil are used domestically and 30 million pounds are exported, then stocks at the end of the fourth quarter would be 75 to 80 million

pounds. Stocks of fish oil have traditionally declined one-tenth to one-third during the fourth quarter. This year we estimate stocks at the end of the year will be about the same as on October 1, or will decline less than 10 percent.

The Industrial Fishery Products Situation and Outlook is published four times a year in January, April, July, and October.

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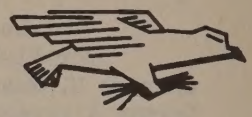

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